

March 4, 2002

Mr. Charles H. Cruse  
Vice President - Nuclear Energy  
Calvert Cliffs Nuclear Power Plant, Inc.  
Calvert Cliffs Nuclear Power Plant  
1650 Calvert Cliffs Parkway  
Lusby, MD 20657-4702

SUBJECT: CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2 -  
AMENDMENTS RE: CONTROL ROOM EMERGENCY VENTILATION SYSTEM  
AND CONTROL ROOM EMERGENCY TEMPERATURE SYSTEM  
OPERABILITY DURING FUEL MOVEMENT (TAC NOS. MB2538 AND MB2539)

Dear Mr. Cruse:

The Commission has issued the enclosed Amendment No. 250 to Renewed Facility Operating License No. DPR-53 and Amendment No. 226 to Renewed Facility Operating License No. DPR-69 for the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2. This amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated July 27, 2001.

The amendments modify the conditions and required actions for the control room emergency ventilation system of Technical Specification 3.7.8. Note 2 is added to TS 3.7.8 to specify the control room emergency ventilation system train operability requirements during the movement of irradiated fuel assemblies. The amendments also modify the conditions and required actions for the control room emergency temperature system of TS 3.7.9 to specify operability during the movement of irradiated fuel assemblies.

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly *Federal Register* notice.

Sincerely,

***/RA by PTam for DSkay/***

Donna Skay, Project Manager, Section 1  
Project Directorate 1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-317 and 50-318

Enclosures: 1. Amendment No. 250 to DPR-53  
2. Amendment No. 226 to DPR-69  
3. Safety Evaluation

cc w/encls: See next page

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*/RA by PTam for DSkay/*

Donna Skay, Project Manager, Section 1  
Project Directorate 1  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

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cc w/encls: See next page

DISTRIBUTION:

PUBLIC	OGC
PDI-1 R/F	GHill (4)
EAndensam	WBeckner
JMunday	ACRS
SLittle	BPlatchek, RI
DSkay	RGiardina

Package: ML020650303

ACCESSION NO.: ML020330092

TSs: ML020640619

\*input provided by safety evaluation dated 01/31/02, incorporated with no significant changes.

OFFICE	PDI-1/PM	PDI-1/LA	BC:RTSB	PDI-1/ASC	OGC
NAME	DSkay	SLittle	WBeckner*	JMunday	ANicosia for JMoore
DATE	2-6-02	2/7/02	01/31/02	2/20/02	2/13/02

OFFICIAL RECORD COPY

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Unit Nos. 1 and 2

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CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

DOCKET NO. 50-317

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 1

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 250  
Renewed License No. DPR-53

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) dated July 27, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Renewed Facility Operating License No. DPR-53 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 250, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Joel Munday, Acting Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 4, 2002

CALVERT CLIFFS NUCLEAR POWER PLANT, INC.

DOCKET NO. 50-318

CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NO. 2

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 226  
Renewed License No. DPR-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) dated July 27, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.2. of Renewed Facility Operating License No. DPR-69 is hereby amended to read as follows:

2. Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 226, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Joel Munday, Acting Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: March 4, 2002

ATTACHMENT TO LICENSE AMENDMENTS

AMENDMENT NO. 250 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-53

AMENDMENT NO. 226 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69

DOCKET NOS. 50-317 AND 50-318

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove Pages

3.7.8-1  
3.7.8-2  
3.7.8-3  
3.7.9-1  
3.7.9-2

Insert Pages

3.7.8-1  
3.7.8-2  
3.7.8-3  
3.7.9-1  
3.7.9-2



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 250 TO RENEWED  
FACILITY OPERATING LICENSE NO. DPR-53  
AND AMENDMENT NO. 226 TO RENEWED FACILITY OPERATING LICENSE NO. DPR-69  
CALVERT CLIFFS NUCLEAR POWER PLANT, INC.  
CALVERT CLIFFS NUCLEAR POWER PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-317 AND 50-318

## 1.0 INTRODUCTION

By letter dated July 27, 2001, the Calvert Cliffs Nuclear Power Plant, Inc. (the licensee) submitted a request for changes to the Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2, Technical Specifications (TSs). The requested changes would modify TS 3.7.8, "Control Room Emergency Ventilation System (CREVS)," and TS 3.7.9, "Control Room Emergency Temperature System (CRETS)" to more accurately reflect the licensing basis for these two systems when irradiated fuel assemblies are being moved.

## 2.0 BACKGROUND

During the conversion to the Improved Technical Specification (ITS) from 1996 to 1998, the CREVS TS (TS 3.7.8) and CRETS TS (TS 3.7.9) were created from the TS requirements in effect at that time. Previous to the conversion, the TS requirements for both the CREVS and CRETS were contained in one TS and were only required during Modes 1 through 4. However, it was acknowledged that CREVS and CRETS were also needed during a fuel-handling accident (FHA) to provide protection for the control room operators. Thus, the applicability for the CREVS and CRETS was expanded to include movement of irradiated fuel assemblies and appropriate Conditions and Required Actions were developed that recognized the new applicability. However, the staff and the licensee were not able to anticipate how restrictive these new Conditions would prove and that the current Conditions would create a situation that is more restrictive than the licensing basis for the plant. The licensing basis for Calvert Cliffs Units 1 and 2 is that only one train of CREVS and one train of CRETS is required to be OPERABLE during movement of irradiated fuel assemblies.

### 3.0 EVALUATION

The proposed changes to TS 3.7.8 are:

1. A second limiting condition for operation (LCO) Note is being added to reflect the licensing basis for the FHA.
2. Condition F was aimed at providing requirements for when the required one CREVS train is inoperable during movement of irradiated fuel assemblies for various conditions. To ensure that Condition F meets the licensing basis, it is being modified by removing the second portion of the Condition which requires that movement of irradiated fuel assemblies be stopped immediately if the required train of CREVS is not OPERABLE for reasons other than Condition B (Toilet area exhaust isolation valve inoperable.)
3. Condition G addresses the case where both trains of CREVS are inoperable and is being modified by adding the words "or during movement of irradiated fuel assemblies" to all portions of the Condition and adding Required Action G.2, which would require the suspension of movement of irradiated fuel assemblies, along with the current Required Action G.1, requiring entry into LCO 3.0.3 for the operating Unit.

The proposed changes to TS 3.7.9 are:

1. The LCO Note is being modified to reflect the licensing basis for the FHA.
2. Condition C was aimed at providing requirements for when the required one CRETS train is inoperable during movement of irradiated fuel assemblies. To ensure that the TS meets the licensing basis, Condition C is being deleted and Condition D is being modified.
3. Condition D addresses the case where both trains of CRETS are inoperable. In this case, the movement of irradiated fuel assemblies would need to stop immediately because the operators would not be protected in the case of an FHA. Condition D is being modified by adding the words "or during movement of irradiated fuel assemblies" and adding Required Action D.2, which would require the suspension of movement of irradiated fuel assemblies, along with the current Required Action D.1, requiring entry into LCO 3.0.3 for the operating Unit. With the deletion of the current Condition C, Condition D will be re-lettered as Condition C.

The CREVS and CRETS are shared systems providing protection to the common Control Room for both Units 1 and 2.

The CREVS provides automatic airborne radiological protection for the control room operators. The CREVS is needed to respond to six different analyzed accidents. Five of the accidents that have an evaluated CREVS response are main steam line break, maximum hypothetical accident, steam generator tube rupture, control element assembly ejection event, and seized reactor coolant pump rotor event. The worst-case single active failure of a component of the

CREVS, assuming a loss-of-offsite power, does not impair the ability of the system to perform its design function (except for one valve in the shared duct between the Control Room and the emergency recirculation filter trains). Therefore, in Modes 1, 2, 3, and 4, two CREVS trains must be OPERABLE to limit operator exposure during and following a design-basis accident.

The sixth accident the CREVS is credited for is a design basis FHA. The CREVS provides automatically-actuated airborne radiological protection for the control room operators during this event. The design basis FHA does not assume a single failure occurs. Therefore, during movement of irradiated fuel assemblies, only one CREVS train must be OPERABLE to cope with the release from an FHA.

The CRETS is a subsystem that provides temperature control for the Control Room following isolation of the Control Room. The CRETS is a shared system that is supported by the CREVS; since the CREVS must be operating for the CRETS to perform its safety function. During events that require the Control Room to be isolated, the CRETS is designed to maintain the temperature below the required limit. Thus, the CRETS is needed to respond to the same six analyzed accidents as the CREVS. Therefore, in Modes 1, 2, 3, and 4, two CRETS trains must be OPERABLE and during movement of irradiated fuel assemblies, only one CRETS train must be OPERABLE.

As stated above, the FHA scenario does not require that a single failure be assumed. Thus, only one train of CREVS and CRETS is required when fuel movement is in progress. During the conversion process an attempt was made to address this licensing basis, and the intention was that TS 3.7.8 Condition F and TS 3.7.9 Condition C would only apply to the required one CREVS and CRETS train. However, the LCO Notes and the applicability do not convey the interpretation of the licensing basis, and could be interpreted to require both CREVS and CRETS trains to be OPERABLE during movement of irradiated fuel for various plant operating conditions. During some periods of plant operation, one Unit can be operating in Modes 1, 2, 3, or 4, while the other Unit is in an outage. Or an alternative case is where both Units are in Modes 1, 2, 3, or 4 and movement of irradiated fuel assemblies is underway in the spent fuel pool. It is possible to have different licensing bases apply to each Unit. The proposed changes to the TSs will clarify this and allow each unit to only enter the Condition that applies to that unit. This would eliminate any possible confusion associated with a common Control Room, with a common redundant CREVS/CRETS, and different operating conditions for each unit.

The NRC staff has reviewed the changes and finds that modified Notes and revised conditions and Required Actions, more accurately reflect the licensing basis for the plant and are, therefore, acceptable.

#### 4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Maryland State official was notified of the proposed issuance of the amendments. The State official had no comments.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no

significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (66 FR 46475). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

## 6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: R. Giardina

Date: March 4, 2002